

Title (en)

Bus bar with integrated heat pipe

Title (de)

Stromschiene mit integrierter Wärmerohr

Title (fr)

Barre omnibus avec caloduc intégré

Publication

**EP 2983261 A1 20160210 (EN)**

Application

**EP 14002718 A 20140804**

Priority

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Abstract (en)

The invention relates to a bus bar body with an integrated heat pipe (1 a, 1 b, 1 c) for a switchgear, in particular a low voltage switchgear, comprising a bus bar body (3a, 3b, 3c, 3d) with an elongated-shaped internal cavity (2a, 2b, 2c), which is sealed and at least partly filled with a liquid cooling medium (4a, 4b, 4c), with a first and a second end, wherein at least one evaporation means (6a, 6b, 6c), which is arranged at least partly in the cavity (2a, 2b, 2c) at the first end and thermally connected to the bus bar body (3a, 3b, 3c, 3d) and configured for evaporating the cooling medium (4a, 4b, 4c), by absorbing thermal energy from the heated bus bar body (3a, 3b, 3c, 3d), and wherein at least one condensation means (8a, 8b, 8c) is provided and arranged at least partly in the cavity (2a, 2b, 2c) at the second end of the body and configured for condensing the evaporated cooling medium (4a, 4b, 4c) by dissipating thermal energy, wherein the condensed cooling medium (4a, 4b, 4c) re-gathers in the cavity (2a, 2b, 2c), so that the bus bar body (3a, 3b, 3c, 3d) is being cooled.

IPC 8 full level

**H02G 5/10** (2006.01)

CPC (source: EP)

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Citation (search report)

- [X] DE 10109722 A1 20020905 - MOELLER GMBH [DE]
- [X] JP S6472430 A 19890317 - HITACHI LTD
- [X] US 3681509 A 19720801 - JOHNSTON FRANK C, et al
- [X] EP 2256767 A2 20101201 - ABB SPA [IT]
- [A] US 4005297 A 19770125 - CLEVELAND CHARLES M

Cited by

EP4221476A1; WO2023194012A1; WO2023143782A1

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DOCDB simple family (publication)

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